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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/603,515	06/23/2000	Andrew P. Foray	P/3879-12	9913

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EXAMINER

KARMIS, STEFANOS

ART UNIT	PAPER NUMBER
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3624

DATE MAILED: 02/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 09/603,515	Applicant(s) FORAY ET AL.	
	Examiner Stefano Karmis	Art Unit 3624	<i>ML</i>

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 25 November 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>17</u> . | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. This communication is in response to Applicant's amendment filed on 25 November 2003.

#### ***Status of Claims***

2. Claims 1, 12, 13, 23 and 24 have been amended. Claims 1-24 are under prosecution in this application.

#### ***Summary of this Office Action***

3. Applicant's amendment filed on 25 November 2003 has been fully considered, and discussed in the next section below. Claims 1-24 are rejected as being unpatentable over the art cited below, and Applicant's request for allowance is respectfully denied.

#### ***Response to Applicant's Amendment***

4. The examiner acknowledges Applicant's arguments in the remarks with respect to the 35 U.S.C. 103 rejection of Togher in view of Silverman and therefore withdraws the previous rejection. Any arguments with respect to the claims are considered moot in view of the new grounds of rejection.

***Claim Rejections - 35 USC § 112***

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 1 and 24 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1 and 24, the term "and/or" renders the claim indefinite because it is unclear whether the limitation(s) following the phrase are part of the claimed invention. See MPEP § 2173.05(d). For examining purposes, the Examiner interprets the term in the claims to possess the "or" meaning.

***Claim Rejections - 35 USC § 102***

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8. Claims 1-3, 5-7, 10-15, and 21-24 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by Togher et al. (hereinafter Togher) U.S. Patent 6,014,627.

Claims 1 and 24, Togher discloses a method and system for anonymous trading that can identify the best bids and offers from those counter parties with which each client site is currently eligible to deal... (column 2, lines 16-18). Buying and selling is facilitated through a communication network (column 4, lines 66-67).

An arbitrator node is used to identify potential matches between buyers and sellers (column 5, lines 19-20).

There are a plurality of arbitrators acting as matching engines that are connected to the communication network, each arbitrator is connected to the other plurality of arbitrators and also having means to a market distributor as well as trader terminals (Figure 1). The market distributors, which relay current market data (column 5, lines 11-12) are preferably supplemented by the arbitrator node performing criteria for matching buyers and sellers (column 5, lines 18-21). The permanent communication link between arbitrators allows for them to distribute price quotes to other devices so that traders in various regions may obtain price messages (column 5, 47-49).

Togher discloses that the arbitrators identify potential match and coordinate its final execution without any communication with other arbitrators, allowing only one matching engine to be active (column 5, line 40-43). Arbitrators not performing matching functions, provide price quotes to trader terminal from different Trade Regions (column 5, lines 40-50).

Claims 2-3, Togher discloses switching active matching engine to another matching engine based on price quotation messages from certain geographic location of a trading transaction.

Claim 5, a communication network where the matching engines are arranged as a clique (figure 1).

Claims 6 and 7, the workstations on the trader floor are each connected to a market access node and each market access node is connected to at least one of a plurality of arbitrators acting as matching engines (figure 1). The market access nodes maintain "transaction records, credit limits, and other confidential information originating with its associated Trading Floor" (column 5, lines 6-8).

Claim 10, the matching engines processes deals (column 5, line 42), it is preferable able to "automatch" a bid price (column 7, line 8) and they broadcast price quotes to traders through the communication network (column 5, lines 48-49).

Claim 11, "it is preferable to have more than one arbitrator, with each arbitrator having primary responsibility for trades initiated by Market Makers in the arbitrator's own Trading Region, and being connected to all the market access nodes and market distributors of the Trading Region as well as to the other arbitrators in other trading regions...(column 5, lines 31-36).

Claims 12 and 23, Togher teaches a method and system for "anonymous trading that can identify the best bids and offers from those counter parties with which each client site is currently eligible to deal...(column 2, lines 16-18).

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A plurality of workstations is each connected to the communication network (figure1). Each workstation having a display that contains "information which a typical trader would consider essential to trading..." (Column 6, lines 41-44).

An arbitrator node is used to identify potential matches between buyers and sellers (column 5, lines 19-20) as well as to communicate with trade terminals items such as price quotes (column 5, lines 47-49). There are a plurality of arbitrators acting as matching engines that are connected to the communication network, each arbitrator is connected to the other plurality of arbitrators and also having means to a market distributor as well as trader terminals (Figure 1). The market distributors, which relay current market data (column 5, lines 11-12) are preferably supplemented by the arbitrator node performing criteria for matching buyers and sellers (column 5, lines 18-21) and for processing deals (column 5, line 42).

Togher discloses that the arbitrators identify potential match and coordinate its final execution without any communication with other arbitrators, allowing only one matching engine to be active (column 5, line 40-43). Other arbitrators, not performing matching functions, provide price quotes to trader terminal from different Trade Regions (column 5, lines 40-50). It is also possible to have to have arbitrators processing deals related to other trading regions simultaneously (column 5, lines 40-44).

Claim 13, the matching engines provide an efficient communication network for broadcasting price quotes to all traders in other Trading Regions (column 5, lines 48-49).

Claims 14-15, Togher teaches switching active matching engine to another matching engine based on price quotation messages from certain geographic location of a trading transaction.

Claim 21 and 22, each workstation acts as a trader terminal (figure 1) and supports a single trader trading in a single currency pair (column 6, lines 41-42).

***Claim Rejections - 35 USC § 103***

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

11. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.



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12. Claims 4, 8-9 and 16-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Togher et al. (hereinafter Togher) U.S. Patent 6,014,627.

Claim 4, Togher teaches that the arbitrators perform "Deal Matching" in the most efficient use of the communication network (column 5, lines 19-24). Togher fails to teach comparing the number of price messages received from the active matching engine to price messages received from passive matching engines and allowing the matching engine with greatest number of price messages to become the active matching engine. Official Notice is taken that switching nodes from active to passive based on number of messages is old and well known in the art. Therefore it would have been obvious at the time of the Applicant's invention to allow for comparing the number of price messages received from the active matching engine to price messages received from passive matching engines and allowing the matching engine with greatest number of price messages to become the active matching engine because it provides for a more efficient matching when only one matching engine may be active at any particular time, basing the criteria on load, a common factor in determining active and passive engines.

Claim 8, Togher teaches multiple market distributors that are connected in a communication network (figure 1). The market distributors are indirectly connected to other market distributors throughout the communication network.

Togher fails to teach a market distributor on the network between an existing market distributor and a trader terminal, thus having two market distributors in direct connection.

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Official Notice is taken that adding to a network is old and well known in the art. It would have been obvious to anyone of ordinary skill in the art at the time of the Applicant's invention to add a market distributor on the network between an existing market distributor and a trader terminal because adding to a network is common to achieve desired network architecture.

Claim 9, the market access nodes are each connected to trader terminals throughout each branch of the network. The access nodes are responsible for "distributing market information" (column 2, lines 44-45) to the trader terminals.

Claim 16, Togher teaches that the arbitrators perform "Deal Matching" in the most efficient use of the communication network (column 5, lines 19-24). Togher fails to teach comparing the number of price messages received from the active matching engine to price messages received from passive matching engines and allowing the matching engine with greatest number of price messages to become the active matching engine. Official Notice is taken that switching nodes from active to passive based on number of messages is old and well known in the art. Therefore it would have been obvious at the time of the Applicant's invention to allow for comparing the number of price messages received from the active matching engine to price messages received from passive matching engines and allowing the matching engine with greatest number of price messages to become the active matching engine because it provides for a more efficient matching when only one matching engine may be active at any particular time, basing the criteria on load, a common factor in determining active and passive engines.

Claims 17 and 18, Togher fails to teach sending a message between active and passive matching engines throughout the network regarding the status of switching engines from active to passive. Official Notice is taken that providing information for changes in a network is old and well known in the art. Therefore it would have been obvious at the time of the Applicant's invention to modify the teachings of Togher to include sending a message between active and passive matching engines o throughout the network regarding the status of switching engines from active to passive because the information is helpful in understanding how the system is operating and where price settlement is being performed.

Claims 19 and 20, Togher teaches that the arbitrators perform "Deal Matching" in the most efficient use of the communication network (column 5, lines 19-24). Togher fails to teach comparing attributes such as a message sequence number to ensure that all trading in the trading book is complete before a matching engine may be switched from active to passive. Official Notice is taken that the completion of jobs before altering a system is old and well known in the art. Therefore it would have been obvious at the time of the Applicant's invention to modify the teachings of Togher to include comparing attributes such as a message sequence number to ensure that all trading in the trading book is complete before a matching engine may be switched from active to passive because all transactions need to be completed before the matching engine switches to a passive state and can no longer perform price settlement.

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***Conclusion***

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stefano Karmis whose telephone number is (703) 305-8130. The examiner can normally be reached on M-F: 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vincent Millin can be reached on (703) 308-1065. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-7687 for regular communications and (703) 305-7687 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 306-1113.

Respectfully Submitted  
Stefano Karmis  
03 February 2004



**HANI M. KAZIMI**  
**PRIMARY EXAMINER**